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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

☒ Responsive to communication(s) filed on _Jan 27, 2000_

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire ___3___ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) _8-15_____ is/are pending in the application.

    Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) _8-15_____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

        ☐ received.

        ☐ received in Application No. (Series Code/Serial Number) _____ .

        ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    *Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2.   Claims 8-10 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by

Andreshak.

As per claims 8 and 12 step (1) of a speech recognition method which associates speech

commands with identifiers, Andreshak (US Patent 5,664,061) teaches "speech recognizer" 32 for

recognizing a spoken command using Markov models as identifiers of an acoustic pattern stored

in "system acoustic command model vocabulary store" 28 which identifiers of acoustic command

models include global commands identifying functions as actions which can be performed in each

active state of a target program (column 3, lines 61-65; col. 7, lines 37-48).

As per claims 8 and 12 step (2) of a speech recognition method which associates

identifiers with actions to be taken in response to each speech command, Andreshak teaches

input of image object identifiers by 26 (see Fig. 1 and 1a) to 27 which identifies for input to

speech recognizer 32 which command words and phrases can be executed given the current state

of an active target program where identifiers of displayed objects are associated with the list of

active-state commands which can produce valid actions associated with the currently active state

of the target program (abstract, lines 4-12), i.e., where active state commands by image objects

are intercepted by "image object identifier" 26 and are directed to "active-state command model

vocabulary identifier" 30 which identifiers an associated subset of "command model vocabulary

store" 28 to identify the words and phrases which are currently active and are to be recognized by

"speech recognizer" 32 which, when a currently active command word or phrase is recognized,

outputs a command signal to be executed to "processor executing target computer program" 10

(col. 5, lines 11-44; col. 8, lines 9-20).

As per claims 8 and 12 step (3) of determining the identifier of a spoken command,

Andreshak teaches determining the identifier of a spoken command by matching spoken words or

phrases to stored acoustic patterns but limits recognition or action on recognized commands to a

dynamic vocabulary of words and phrases associated with the current state of objects within an

active target program as determined by image object identifier 26 (see Fig. 1) where the currently

valid vocabulary, a subset of the full vocabulary, is determined by vocabulary identifier 30 as input

to speech recognizer 32 of the currently active-state vocabulary items which speech recognizer 32

recognizes by matching the appropriate acoustic pattern stored in vocabulary store 28 wherein

recognized commands, limited to the subset vocabulary identifiers of 30, result in a command

signal sent by 32 to processor 10 is executed by the target program under its current state

(column 4, lines 5-49; col. 5, line 11 -col. 6, line 15; col. 8, lines 9- 39).

As per claims 8 and 12 (4) of providing the identifier to a software object, Andreshak teaches identifying at least one object displayed in the active state image of the target computer program which may comprise an operating system alone, an application and an operating system, combined, or two or more applications and an operating system (column 4, lines 38-48; column 3, lines 42-47).

As per claims 9, 10 and 13 of creating an object in a container and communicating an identifier signal to identify an object when a command is spoken and communicating information to the object on a vocabulary list in the container for a command used in an active task and sending the identifier for the command to the object, Andreshak teaches illustration by describing C programming language source code of reading an active state image for creating vocabulary from the active state image defined for the speech recognition engine and outputting a command signal from the active-state vocabulary having the best match score which is sent to activate the object associated with the vocabulary item, e.g., command (column 16, lines 18-26).

As per claim 14 and 15 (1) of computer response to inputs by an object receiving spoken or non-spoken commands, Andreshak teaches computer response to inputs by an object receiving or non-spoken commands as shown on Fig. 1 where "image object identifier" 26 (col. 6, lines 5-13) intercepts signals (col. 5, lines 58-61), from displayed active-state objects (col. 5, lines 35-43) activated by an interactive user of the target program 10 (col. 5 lines 29-35), and identifies identifiers of command objects of target program 10 which are currently open in its current active state which are sent to "active state command model vocabulary identifier" 30

which identifies the current active state vocabulary items associated with acoustic command

modules which are valid for the current target program's active state (col. 8, lines 9-13) which

active state vocabulary subset is accessed by speech recognizer which limits recognition of

patterns stored in "acoustic command model store" 28; wherein a speech recognizer for

converting an utterance to a command signal (abstract, lines 2-4) resulting in a displayed object

identifying functions performed by the command signal performing the command invoked on the

target program (abstract, lines 8-12) as an object on a menu of active state commands inputted by

unspoken keyboard, mouse or other unspoken standard input (column 4, lines 38-48).

As per claims 14 and 15 (2) of firing an event when the object receives command

information, Andreshak teaches invoking displays of the object invoked by interaction by mouse

or keyboard or by speech recognition with displayed active-state software items generating inputs

of active state command signals (column 5, lines 24-39) resulting in a sequence of consequential

interactive events generated by the target program or by the operating system (col. 5, line 65 -

col. 6, line 21); e.g., where as shown on Fig, 1a where an event, appropriate to the current state

of active objects of target program 10, as determined by image object identifier 26 and limited to

the suitable subset of active vocabulary items listed by 27, is recognized by speech recognizer 32

which fires the event to processor 10 where an active object executes the event or accepts further

user interaction if the recognized event is ambiguous (col. 8, line 66 - col. 9, line 10; col. 9,

lines 34-40).

3. Claims 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Trower II et al.

As per claims 14 and 15 (1) of computer response to inputs by an object receiving spoken or non-spoken commands, Trower II et al (US Patent 5,983,190) teaches a commands object that enables clients to specify a collection of commands that an agent object will respond to a client is made active including a list of commands that the server defines for general interaction with the user as accessed visually through a window as a caption with visible properties or as accessed by setting the voice property of a command for speech recognition (column 27, lines 4-26).

As per claims 14 and 15 (2) of firing an event when the object receives command information, Trower II et al teaches an OLE control object in a host application called a container where OLE controls an event by notifying a container that something has happened to be implemented in the container by standard OLE automation methods by calling the proper container method to fire the event (column 21, lines 24-40).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andreshak in view

of Denning.

        The applicant is thanked for providing remarks and information resolving the issue of the

patentability of claim 11 including sending the reference to a Microsoft Press publication, "Active

X Controls Inside Out" by Adam Denning which indicate the OnMnemonic method Visual Basic

construct for controlling communication by an object to a container.

        As per claim 11 of using the OnMnemonic method to communicate between the container

and the object, Andreshak teaches communication of a command signal as an identifier of a

recognized spoken command which is to be executed by an instantiated object in the container,

said command signal limited to the subset vocabulary of commands appropriate to currently active

interactive objects of a target program and further, after recognizing the acoustic pattern identifier

of said command, sends the command signal to the target program which executes the command

either automatically or interactively, if verification or additional information is required (col. 8,

lines 9-39).

        Andreshak does not use the OnMnemonic method to control communication between an

object and container.

        Denning teaches Mnemonic method as a control interface for an object communicating

events between object and container ("Control and Container Communication", pp 110-111).

        It would have been obvious to an artisan and at the time of the invention to use the

Mnemonic method as a Visual Basic construct for creating an object oriented control and

communication interface for object oriented speech recognition software integrated with other

interactive objects of a target program capable of communicating with application servers.

Response to Arguments

6.   Applicant's arguments filed paper number 5 have been fully considered but they are not

persuasive. The examiner thanks the applicant for the enlightening and clearly stated remarks

regarding the underlying concept of the invention and for the disclosure by the applicant of the

prior art of Denning. In view of this prior art, the objection to claim 11 is withdrawn and claim 11

is rejected for obviousness taught by Andreshak in view of Denning.

With respect to remarks on claim 8, regarding Andreshack teaching identifiers associated

with actions taken in response to speech command, more careful consideration by the examiner of

the method taught by Andreshak resulted in clarification by additional details and references cited

showing how Andreshack teaches a dynamic speech recognition process which determines the

identifiers of changing vocabulary items corresponding activated states of a target application

program.

Similarly the remarks regarding claim 14 were carefully considered. Andreshak teaches

response to either tactile or spoken user input by a speech recognition object which performs

speech recognition dynamically determining the identifiers of a vocabulary subset compatible with

the active state of the target application where the speech recognizer responds to recognized

commands by firing an event appropriate to said activated states of the target application

program.

Given the broadness of claim 8 and claim 14, the method taught by Andreshak and the

applicant are very similar even though comparison of Fig. 1 of the application to Fig. 1 and

Fig. 1a of Andreshack suggest differences especially in the control and communication process

which appears to be centralized as taught by the applicant and decentralized as taught by

Andreshak.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date

of this final action.

8.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Robert Sax whose telephone number is (703) 306-3017.

      If attempts to reach the examiner are unsuccessful, the examiners supervisor, Krista Zele

can be reached at (703) 305-4701.

      Any inquiry of a general nature relating to the status of this application should be directed

to the group receptionist whose telephone number is (703) 305-3900.

RLS

KRISTA ZELE
SUPERVISORY PATENT EXAMINER
GROUP 2700

March 2, 2000